

CLAIMS

1. A curtain device mounted on a shaft (2) around which this curtain (1) may be wound toward an open position and from which it can be unwound toward a closed position, a drive wheel (7) secured coaxially on this shaft (2) and cooperating with the curtain (1) in such a manner so as to move the latter between these two positions, **characterized in that** it comprises a flexible oblong control element (11) that cooperates with the drive wheel (7), this element (11) being mounted freely in relation to the curtain in such a manner to allow the curtain (1) to be moved between its open position and its closed position independently of the slack which may possibly form in the curtain (1), on the one hand, and to be able to move along at least one of the side edges (4) of the curtain (1) and act on the zone (8) of the latter opposite that mounted on the shaft (2), on the other hand.

2. The device according to claim 1, characterized in that the pitch diameter of the drive wheel (7) is less than the diameter of the wound portion of the curtain (1) in its open position, on the one hand, and greater than the diameter of the aforementioned shaft (2) or the wound portion of the curtain (1) in its closed position, on the other hand.

3. The device according to claim 1 or 2, characterized in that the pitch diameter of the drive wheel (7) is greater than or equal to half the sum of the diameter of the wound portion of the curtain (1) in its open position, and of the the diameter of the aforementioned shaft (2) or the wound portion of the curtain (1) in its closed position.

4. The device according to any of claims 1 to 3, characterized in that means are provided to enable a maximum of one coil of the control element (11) to be wound around the drive wheel (7) parallel to a plane perpendicular to the axis (6) of the shaft (2).

5. The device according to any of claims 1 to 4, characterized in that the control element (11) is essentially incompressible in terms of its length.

6. The device according to any of claims 1 to 5, characterized in that the aforementioned element (11) is such that it can exert a pushing force on the curtain (1) to bring it to its closed position.

7. The device according to any of claims 1 to 6, characterized in that the aforementioned control element (11) comprises an incompressible element in terms of its length.

8. The device according to any of claims 1 to 7, characterized in that the drive wheel (7) features a series of bosses or indentations (9) cooperating with the control element (11) and evenly spaced in relation to one another along the periphery of a circle, the center of which is located on the axis (6) of the foresaid wheel (7).

5 9. The device according to claim 8, characterized in that the control element (11) includes an endless tape or chain.

10 10. The device according to any of claims 1 to 9, characterized in that means are provided for the curtain (1) to avoid slack from forming in the latter when it is being unwound.

11. The device according to claim 10, characterized in that these means include ballasting (22) at the edge of the curtain (1) opposite to that mounted on the aforesaid shaft (2).

12. The device according to any of claims 1 to 11, characterized in that the drive wheel is secured coaxially on the shaft (2) in such a manner to be able to travel at
15 the same angular speed as this shaft (2).

13. The device according to any of claims 1 to 12, characterized in that it includes guide rails (5) in which the side edges (4) of the curtain (1) and the control element (11) can travel parallel to one another.

14. The device according to any of claims 1 to 13, characterized in that
20 the drive wheel (7) is such that the control element (11) can be wound spirally on it around its axis of rotation.

15. The device according to claim 14, characterized in that the drive wheel (7) has a truncated conical form such that, during both unwinding and winding of the control element, the linear speed of the latter essentially corresponds to that of the
25 curtain (1) traveling between its open position and its closed position.

16. The device according to any of claims 1 to 15, characterized in that a compensator is mounted on the aforementioned shaft (2) enabling the wound portion of the curtain (1) to be adapted to the travel of the control element (11).